

THERMAL STORAGE MEDIUM AND ITS DISPERSION

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Abstract

PROBLEM TO BE SOLVED: To obtain a thermal storage medium, containing an organic compound causing a phase change and a specific nucleating agent, capable of preventing a supercooling phenomenon from occurring, causing an extremely small difference between the melting point and the freezing point when repeating the heating and cooling and useful as a heat retaining polymer, a cold heat conveying medium, etc.

SOLUTION: This thermal storage medium contains (A) an organic compound causing a phase change (e.g. a $\geq 10^\circ\text{C}$ straight-chain aliphatic hydrocarbon) together with (B) a nucleating agent which is an amine derivative, an alcohol derivative or a carboxylic acid derivative of the component (A), e.g. the component (B) in an amount of 30-0.5wt.% based on the component (A). Furthermore, the thermal storage medium is dispersed into an emulsion in a dispersion medium with an emulsifying agent or enclosed in a microcapsule, which is dispersed in the dispersion medium. The resultant dispersion can be utilized as a thermal storage medium dispersion.

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